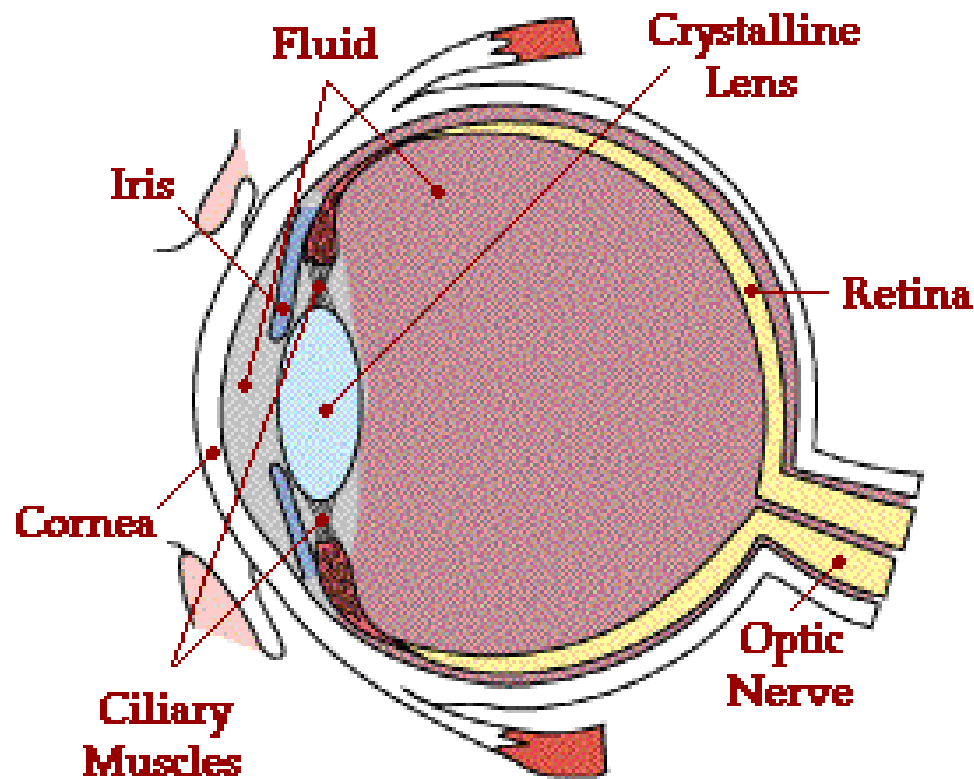
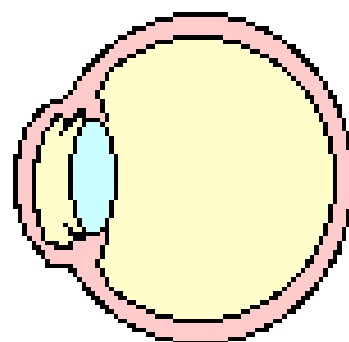


Uses of Lenses

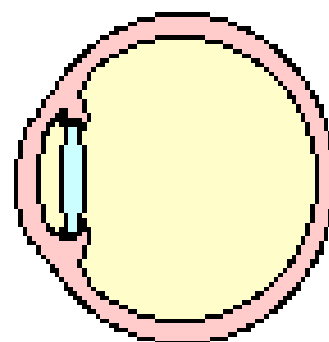
The Eye



Accommodation



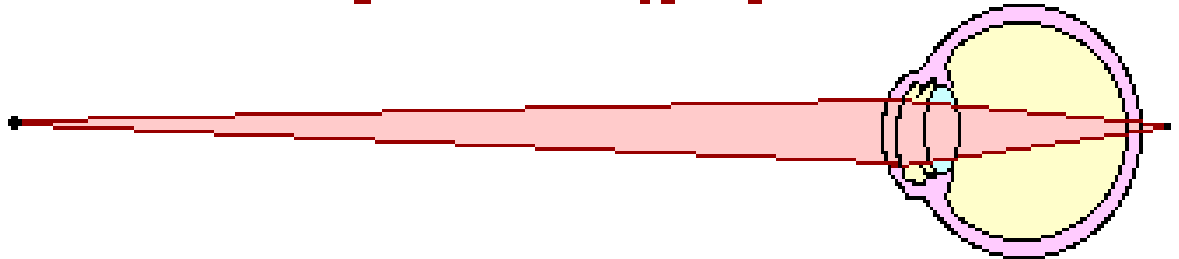
**Short focal length
for nearby objects**



**Long focal length
for distant objects**

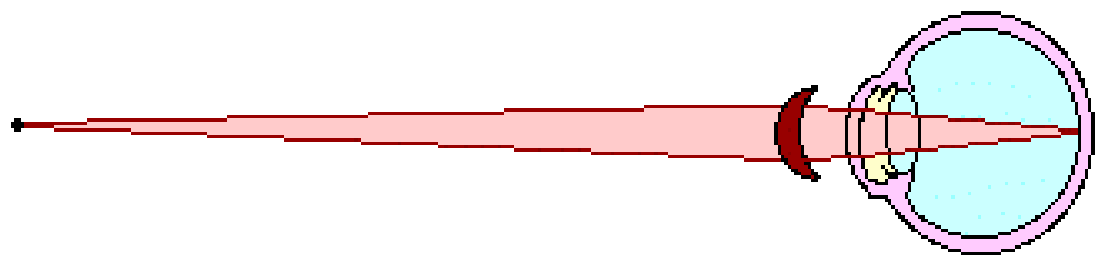
Farsightedness or hyperopia

Farsightedness or Hyperopia



The inability of the lens to assume a high curvature and a short focal length leads to the formation of an image located behind the retina.

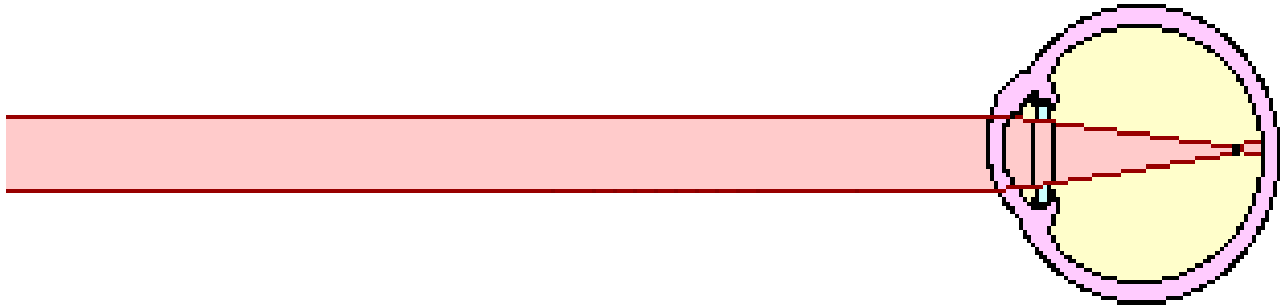
Correction for Farsightedness



Farsightedness can be corrected by the use of a converging lens. Light refracts before reaching the cornea and is subsequently focused on the retina of the eye.

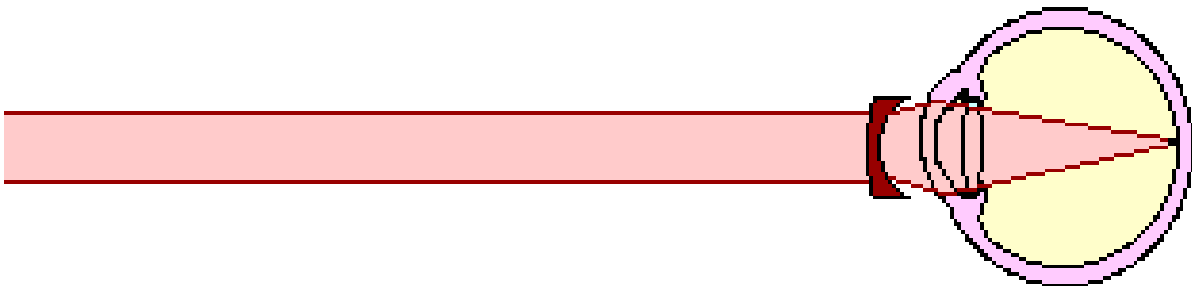
Nearsightedness or myopia

Nearsightedness or Myopia



A bulging cornea or an elongated eyeball often increases the refracting power of the eye, leading to the formation of images in front of the retina.

Correction for Nearsightedness



Nearsightedness can be corrected for by the use of a diverging lens. Light diverges before reaching the cornea and is then converged to a location on the retina.